

IN THE CLAIMS:

Please amend the claims as follows:

1. to 14. (Cancelled)

15. (Original) A method of distinguishing different-sequence polynucleotides electrophoretically in a sieving medium, comprising forming one or more different-sequence polynucleotide(s), each different-sequence polynucleotide containing (i) a detectable reporter label and (ii) an attached polymer chain which imparts to each different-sequence polynucleotide, a distinctive electrophoretic mobility in a sieving matrix,

fractionating said polynucleotide(s) by capillary electrophoresis in a sieving matrix, and

detecting the fractionated polynucleotide(s).

16. (Original) The method of claim 15, wherein the polymer chains have substantially the same lengths, and said different-sequence polynucleotide(s) have different lengths.

17. (Original) The method of claim 16, for sequencing DNA by dideoxy chain termination, wherein said polynucleotides are formed using a 5'-primer to which said polymer chain is covalently bound.

18. (Original) The method of claim 17, wherein said different-sequence polynucleotides terminate at their 3'-ends with dideoxynucleotides that are covalently labeled with spectrally resolvable dyes effective to distinguish the 3'-terminal nucleotide of each different-sequence polynucleotide.

19. to 32. (Cancelled)